

## **REMARKS/ARGUMENTS**

### **1. Claim Amendments**

The Applicant has amended claims 8 and 10; claims 9 and 11 have been canceled. Applicant respectfully submits no new matter has been added. Accordingly, claims 8, 10, 12-14 are pending in the application. Favorable reconsideration of the application is respectfully requested in view of the foregoing amendments and the following remarks.

### **2. Claim Rejections – 35 U.S.C. § 103 (a)**

Claims 8, 13-14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Chuah '877 (US 2004/0032877) in view of Willekes (US 2002/0075824). Independent Claim 8 has been amended to further distinguish the invention from the cited references and incorporate the limitations of claim 9. Claims 13-14 now depend from amended claim 8.

Claim 9 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Chuah '877 (US 2004/0032877) in view of Willekes (US 2002/0075824) and further in view of Chuah '765 (US 6674765) (Chuah II). Claim 9 has been incorporated into Claim 8. Claim 8 (and Claim 10, from the user equipment perspective) now include the element(s) of (which is placed in the order in which the method is executed):

Claim 8:

...selecting a preamble signature for use on a sub-channel of a random access channel for the subscribing user equipments; then,...

Claim 10:

determining a delay time period based on dividing an MBMS session into a first period for transmission of MBMS data to the user equipment and a subsequent second period for transmitting feedback information by the user equipment;

using a preamble signature on a sub-channel of a random access channel for transmission of said feedback information by the user equipment; and

With respect to Claim 9, in paragraph 11 of the Office Action, the Examiner states that Chuah and Willekes do not teach use of a preamble signature. The Examiner continues by stating that Chuah II teaches a preamble signature at Fig. 8, Element 804. The description of Fig. 8, element 804 of Chuah II is as follows:

In the access priority embodiment in FIG. 8, the remote terminal, in step 801, receives and stores (in its memory) the following access priority system parameters broadcast by the base station: P which is the maximum number of preamble signatures (e.g.,  $P \leq 16$ ); T which is the number of time offsets (e.g.,  $T \leq 8$ ) whereby M is the total ( $P \times T$ ) number of logical access channels representing the number of processing units and time searching capability that the base station includes; and  $K_i$  which is the maximum number of retransmission attempts for each class i. Accordingly, in step 802, the remote terminal (via the processor associated therewith) determines whether a new access request is required due to receipt of packets to be transmitted. If so, in step 804, the remote terminal selects a preamble from among (1, ..., P). Then, in step 806, for class i, the remote terminal selects one time offset from ( $T_i$ , ..., T) such that  $T_i < T_{i+1}$ ,  $T < T_{i+1}$ ,  $T_0 = 0$ ,  $T_{max} = 8$ . For example, class 0 (highest priority class) can choose from the set of time offsets ranging between time offset 0 through time offset 4. In an alternative embodiment, the remote terminal can also store and then select a random chip delay at this point according to the RCDAP approach in FIG. 5. The access request is then transmitted on the selected logical access channel, in step 808.

Note that although a preamble signature is referred to in Chuah II, it cannot be implemented with Willekes and Chuah so as to obtain the present invention. Specifically, the combination of Willekes, Chuah and Chuah II do not disclose the use of a preamble signature in combination with the time delay for determining parameters of transmitting information from a user equipment in an MBMS system.

Generally, Willekes, Chuah and Chuah II, in combination, do not disclose dividing an MBMS-session into a first period for transmission of MBMS-data to user equipments and a subsequent second period for receiving feedback information, e.g., MBMS-data acknowledgements, from said user equipments, the spreading of the uplink transmission of said feedback information from said user equipments in order to

minimize collisions of such transmissions on the uplink channel wherein the spreading is performed over time and additionally, with respect to a channel property, a RACH preamble signature.

The present invention divides an MBMS session into a first period for transmission of MBMS data to user equipments and a subsequent second period for receiving feedback information, e.g. MBMS data acknowledgements, from said user equipments. MBMS is a broadcasting service used in the GSM and UMTS cellular networks. The infrastructure offers an option to use an uplink channel for interaction between the service and the user, which is not a straightforward issue in usual broadcast networks, as for example conventional digital television is only a one-way (unidirectional) system. MBMS uses multicast distribution in the core network instead of point-to-point links for each end device .

The present invention spreads the uplink transmission of said feedback information from said user equipments in order to minimize collisions of such transmissions on the uplink channel. The spreading is performed over time additionally, with regard to the RACH sub-channel and RACH preamble signature.

It appears that the Examiner has found certain similar claim elements in Willekes, Chuah and Chuah II, but those references are not directed to the problem addressed by the Applicants' invention, nor, in combination do they disclose nor suggest the present invention.

In rejecting Applicant's invention, the Examiner has impermissibly used hindsight by reading back into the prior art the teachings of Applicant's own disclosure. The Examiner has used Applicants' claims as a blueprint to pick and chose elements from the prior art similar to Applicants' individual claim limitations, without regard to the manner in which those limitations have been combined by Applicant to effect a novel and useful improvement to the state of the art.

Chuah II provides access priority in a MAC protocol of a communications system such as, for example, with respect to UMTS RACH. Particularly, Chuah II introduces *several access priority methodologies* including: (i) random chip delay access priority (RCDAP); (ii) random backoff based access priority (RBBAP); (iii) variable logical

channel based access priority (VLCAP); (iv) UMTS-specific variable logical channel based access priority (VLCAP'); (v) probability based access priority (PBAP); and (vi) retransmission based access priority (REBAP). Each methodology associates some parameter or parameters to access priority classes in order to influence the likelihood of a remote terminal completing a successful access request to a base station. The foregoing is not equivalent to avoiding collisions in the MBMS context on the uplink (for feeding back user equipment information).

Various bits of data or teachings of the prior art are not properly combined unless there is something in the prior art itself that suggests that those teachings could or should be combined. Both the suggestion for combining teachings to make the invention and its reasonable likelihood of success "*must be founded in the prior art, not in the applicant's disclosure.*" *In re Dow Chem.* 837 F.2d 469, 473 (Fed. Cir. 1988). Because the Examiner has failed to meet that burden, he has failed to establish a prima facie case of obviousness and, therefore, claims 8 and 11 should be allowed.

Claim 12 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Chuah '877 (US 2004/0032877) in view of Willekes (US 2002/0075824) and further in view of Osawa (US 5621732). Independent Claim 8 has been amended to incorporate the limitations of claim 9. Claims 12 now depends from amended claim 8.

Claims 10-11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Chuah '765 (US 6674765) in view of Willekes (US 2002/0075824). Claim 11 has been incorporated into claim 10. As noted above, claim 10 now includes the element of (which is also included in Claim 8):

determining a delay time period based on dividing an MBMS session into a first period for transmission of MBMS data to the user equipment and a subsequent second period for transmitting feedback information by the user equipment;

using a preamble signature on a sub-channel of a random access channel for transmission of said feedback information by the user equipment; and

As noted above, Chuah in view of Willekes, fail to disclose or suggest this element. While Chuah II discloses a preamble signature, it cannot be technically combined with the other references to obtain or suggest the present invention. Therefore, the allowance of claims 8, 10 and 12-14 is respectfully requested.

### **CONCLUSION**

In view of the foregoing remarks, the Applicant believes all of the claims currently pending in the Application to be in a condition for allowance. The Applicant, therefore, respectfully requests that the Examiner withdraw all rejections and issue a Notice of Allowance for all pending claims.

The Applicant requests a telephonic interview if the Examiner has any questions or requires any additional information that would further or expedite the prosecution of the Application.

Respectfully submitted,

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